

Pro Greens Intervention in Portuguese Schools

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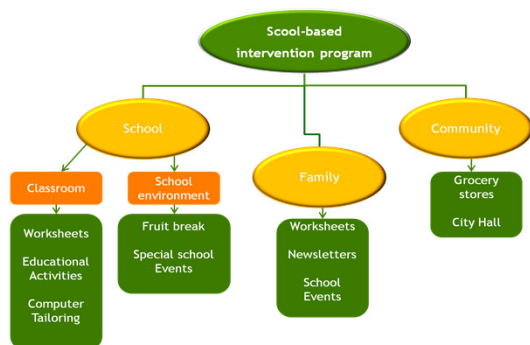
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Introduction

The Pro Greens is a healthy eating promotion project, running between August 2008 and July 2011, in eleven EU countries (www.progreens.org). In Portugal, the study takes place in Vila do Conde, a small town north of Porto, with rural/urban schools and a diversity of socio demographic groups.

The main objectives of the project are to assess the level of consumption of fruit and vegetables in school children and to develop and test effective strategies to promote their consumption.

This school-based project includes a baseline survey, an intervention and a follow-up survey. The participating schools were randomly assigned to the control or intervention groups. The intervention consists of different components:



Aim

The aim of this paper was to identify a possible association between fruit and vegetables sensory attributes (smell, taste, appearance and mouthfeel) and consumption of these food items.

Methods Taste Sessions

The Portuguese sample includes 1008 children aged 11-13 years old from 5 schools: 2 intervention (n=471) and 3 control ones (n= 537). In this paper, data from the intervention process will be presented. 306 children participated which means a participation rate of 65%. In the classroom component, the results were evaluated from the previously taste sessions conducted by two Nutritionists from the Faculty of Nutrition and Food Sciences in both intervention schools.

Students tasted five different fresh fruits (pineapple, grapes, pear, tangerine and kiwi) and five fresh vegetables (carrot, radish, red pepper, cucumber and celery). Afterwards, they filled in a table with one question related to consumption of each fruit and vegetable ("Do you usually eat this fruit/vegetable?") and used an evaluation scale from 1 (low) to 10 (high) to classify the respective sensory attributes.

Data were entered and analyzed in SPSS® version 17.0. Mann-Whitney test was applied to compare the mean ranks between two independent groups.

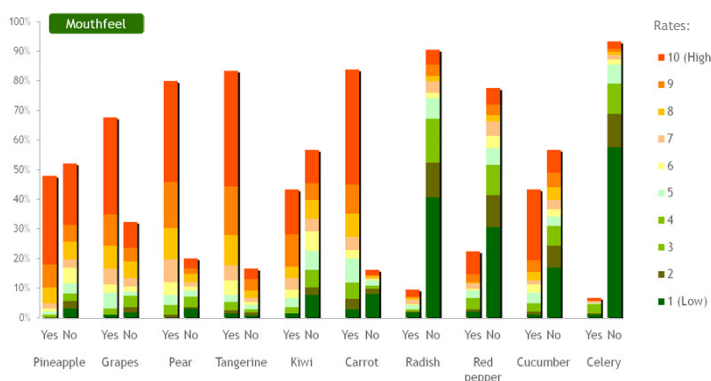
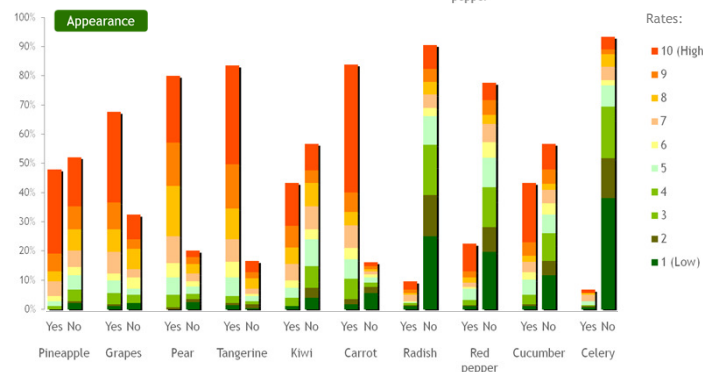
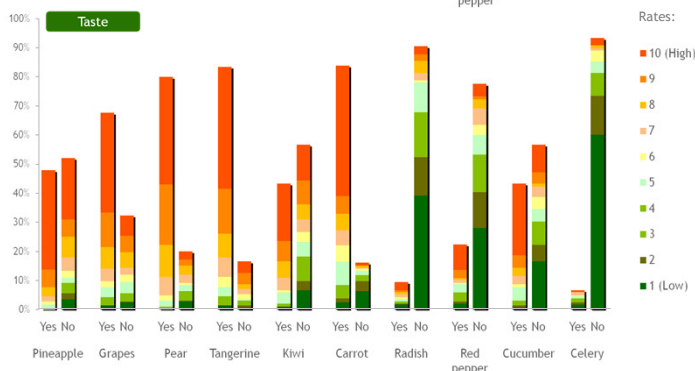
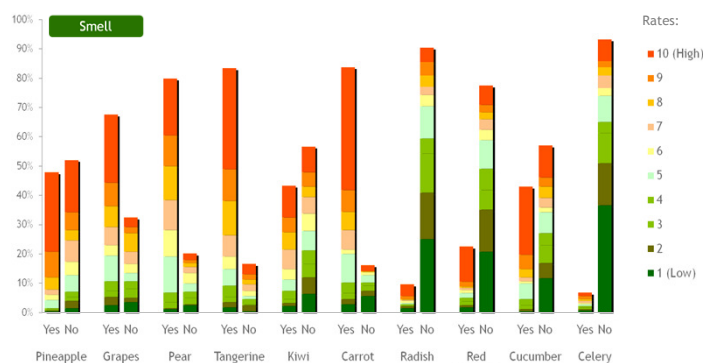


Taste Sessions

Results

The most popularly consumed fruits were pear and tangerine whereas for vegetables this happened to carrot and cucumber. The remaining vegetables were hardly eaten by these children. For each sensory attribute, the highest ratings were attributed to tangerine and pineapple. The same was also found for carrot and cucumber.

The association between consumption of both fruit and vegetables and their sensory attributes was statistically significant ($p < 0.05$) for all.



Conclusion

This study suggests that regular consumption of these fresh fruit and vegetables is associated to higher ratings of their sensory attributes. Repeated exposures to those fruit and vegetables which are less appreciated can be an useful approach to promote their consumption among children.